Grading

Fuel greatly affects grading prices. A $1/Gallon difference in fuel prices will result in an approximate $0.25/CY difference for Class A Excavation and a $0.40/CY difference for Class C Excavation for a haul distance of 2000 feet or less. Unclassified Excavation will fall somewhere in between depending on the amount of Class C material. A history of fuel prices that is useful when estimating grading costs can be found at: http://tonto.eia.doe.gov/oog/info/wohdp/diesel.asp

Subsection 4-08.3 of the PDM instructs the designer to consider the average haul distance, and whether the equipment required will be on- or off-road. On-road trucks or long hauls result in lower production rates and higher cost.

When balancing earthwork it is useful to note that a haul distance of over 1 mile, on- or off-road, may need further analysis to produce an earthwork balance that is cost-effective. Also excess excavation can cost as much as borrow. It has to be hauled somewhere!

For projects containing Unclassified Excavation, ensure that the job used for price history contains similar geologic features. The price of Unclassified Excavation directly relates to the percentage of rock in the excavation and is to be estimated as such. Price histories for Class A and Class C are to be used with the assumed amount of rock to find the most representative price. Generally, operations for rock excavation result in prices that are 2.5 to 3 times higher than soil excavation prices for short hauls (again, 2000 feet or less). Example: 100,000 yards unclassified, assumed 70% rock. Class A history $3.35/CY, Class C History $7.25/CY…use price of $6.08/CY.